HABS No. NY-6334-G

KYKUIT, MARCEL BREUER EXHIBITION HOUSE John D. Rockefeller Sr. Estate 200 Lake Road Pocantico Hills Westchester New York

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED & INTERPRETIVE DRAWINGS

HISTORIC AMERICAN BUILDINGS SURVEY
National Park Service
U.S. Department of Interior
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HISTORIC AMERICAN BUILDING SURVEY KYKUIT, MARCEL BREUER EXHIBITION HOUSE

PART 1: HISTORICAL INFORMATION

A. Physical History:

- 1. Date of Erection: In 1948, the architect Marcel Breuer was commissioned to design a house for the Museum of Modern Art as part of a series of exhibition buildings to be displayed in their garden. The exhibition was built in 1949 and was on display for six months until October 1949. Shortly after the exhibition, the building was bought by John D. Rockefeller Jr, cut into four sections and transported to its new site in Pocantico Hills via tractor trailer. It has been in its current site since early 1950.
- 2. Architect: Marcel Breuer was born in 1902 in Pécs, Hungary. He studied at the famed Bauhaus under Walter Gropius and graduated in 1924, but continued to stay at the Bauhaus as a teacher until 1928. As there was no formal architectural training at the Bauhaus at that time. Breuer studied furniture making and became well known in Europe for his innovative tubular steel furniture before he was known for his architecture. He is most famous for his 1927 "Wassily" chair made of tubular steel and leather and the 1928 cantilever or "Cesca" chair which are both mass produced even today by Knoll furniture. In 1937, he followed his mentor Walter Gropius to the United States. Gropius had become the director of the Harvard Graduate School of Design where Breuer became a professor. At this time, he also went into private practice with Gropius but the partnership ended in 1941.² Through the 1940s and into the mid 1950s Breuer established himself as a sought after residential architect known for his "bi-nuclear house". ³ The house, best exemplified in the Geller House of 1945, was based on the concept of organizing the interior spaces according to function. The House in the Museum Garden was designed during this period (1949) and while it was not one of Breuer's "bi-nuclear" houses, it exemplified a new concept for living in post WWII America and showed that Modernism could also be comfortable and livable. The plans for the model house were for sale and there are several known versions that were built including one in Red Bank, New Jersey and one in Princeton, New Jersey. After the exhibition, Breuer was even more popular and began to do larger and more diverse commissions.⁴ These projects included a dormitory for Vassar College (1951) and the UNESCO headquarters (1953) in Paris. In the later years of his career, Breuer became enamored with cast concrete and the shapes that could be created with it. In 1956, he formed a partnership with Herbert Beckhard, Hamilton Smith and Robert F. Gatje and with them designed Saint John's Abbey Church (1961) at Saint John's University in Minnesota, the Whitney Museum in

¹ Following this were a house by Gregory Ain, (1950) and a traditional Japanese House by Juzo Joshimura (1954), now in Fairmont Park, Philadelphia, called the Shofuso.

² Arnt Cobbers, Breuer, Form Giver of the Twentieth Century (Germany: Taschen GmbH, 2007), 11

³ Cobbers, Breuer, 11.

⁴ Ibid, 13.

Manhattan (1966), the AT Tower in Cleveland (1971) and the IBM research center in La Gaude, France (1961-79). Marcel Breuer passed away in New York on July 1, 1981.

- 3. Original and subsequent owners, occupants: At the close of the six-month exhibit, the house, which had been slated for demolition, was instead purchased by John D. Rockefeller Jr. Mr. Rockefeller had it cut into four sections and transported 30 miles north to his estate in Pocantico Hills, where it was reassembled (with certain modifications) and used as a guest house. The first person to live in the house was Winthrop Rockefeller, fourth son of John D. Rockefeller, Jr. As part of the settlement after Nelson Rockefeller's death in 1979, the ownership of the estate was divided and the parcel that the Breuer House is on was owned by Laurance Rockefeller until his death in 2004. His executors donated the house to the National Trust for Historic Preservation in January 2007 and since then, through an existing agreement for the remainder of the estate, the building has been administered by the Rockefeller Brothers Fund. From 1949 until 2007, the house was used by various family members as a guest and weekend home. The house is currently used by the Rockefeller Brothers Fund for special tours and a residency program.
- **4. Builder, contractor, supplier**: The booklet published by the Museum of Modern Art for the exhibition gives a detailed list of all the contractors and suppliers (see attached). The Murphy-Brinkworth Construction Company was the general contractor and Nicholson & Galloway was the roofing contractor. The major suppliers were:

Steel Casement windows: Hope's Windows

Paint: Martin-Senour Company

Structural Plywood & Paneling: United States Plywood Company Plate Glass & Carrara Structural Glass: Pittsburgh Plate Glass Company

Breuer Plywood Chairs Knoll Associates
Eero Saarinen Easy Chair Knoll Associates
Kitchen Appliances General Electric

There is no record of the contractor for the reassembly of the house in Pocantico Hills.

- 5. Original plans and construction: There are original plans by Marcel Breuer for the exhibition house as well as plumbing and mechanical plans for when the house was moved and reconstructed on the current site in 1950 (plumbing and heating had to be added as the house was a demonstration house and did not have working systems). There are also numerous photos by Ezra Stoller of the house being built at MoMA and their exhibition program on the house with a complete listing of the materials and manufacturers as well as the major contractors (see attached).
- 6. Alterations and additions: When the house was moved to the current site in 1950, plumbing and HVAC systems were added and these changes are documented in the drawings done for the building dated February 1950 (no architect indicated). In addition, the kitchen was enclosed and a door installed. The garage was also expanded 4' and a man door added to the south side. These last two changes were removed in 2007 when the building was given to the National Trust for Historic Preservation and administered by the Rockefeller Brothers Fund. At that time an

effort was made to restore the building to the architect's original intent and the kitchen and garage alterations, which clearly conflicted with the intended design of the structure, were changed back to the original design. Also as part of the renovations in 2007, the Carrara glass tile around the shower in the master bathroom was replaced, the cabinet to the west of the chimney was removed and cypress was put back on the wall. A paint analysis of the interior was also done and the interior and exterior were painted accordingly. Prior to 2007 the shower surround in the lower bathroom, which was originally all plywood, was replaced with square ceramic tiles. These tiles were replaced with Carrara glass tile in 2009 and were laid out in the same pattern as in the upstairs bathroom. Also in 2009, the floor, which had originally been bluestone in the exhibition house at MoMA and then had been changed to a cork floor and later to carpet under family ownership, was changed to slate in keeping with Breuer's use of natural materials and the original stone floor. Unfortunately, it was necessary to install a thinner, more regular pattern than the original flagstone floor due to minimal clearance for doors and windows.

B. Historical Context:

At the end of World War II, the United States found itself low on housing, especially with the many soldiers coming home. With factories, once busy making war supplies, looking for new products, prefabricated homes were an appealing solution to the housing crisis. Carl Strandlund, an engineer, had been using excess steel from the war for building gas stations and began to design prefabricated houses made of enameled steel. The most popular model of what was known as the Lustron House was the 1000 square foot 2 bedroom Westchester model.⁵. Like the exhibition house by Breuer, it included many built-ins (although in enameled steel) and a radiant heating system. The first Lustron demonstration house made its debut in New York City in 1948, not far from the Museum of Modern Art where the Breuer exhibition house would be built the following year. In 2008, the Museum of Modern Art held an exhibition curated by Barry Bergdoll, the Philip Johnson Chief Curator of Architecture and Design and Peter Christiansen, Curatorial Assistant, Department of Architecture and Design and entitled *Home Delivery*: Fabricating the Modern Dwelling. In the exhibition, Bergdoll placed an original Lustron house next to a large scale photograph of Breuer's exhibition house. In the book published in conjunction with the exhibition, Bergdoll states "few are aware that a major impetus for this ambitious undertaking [the Breuer house] was the popularity of a nearby prefabricated, all-metal demonstration house fabricated by the Lustron Company."⁶

The other well known plan for prefabricated housing was Levittown, New York which was created by Levitt & Sons between 1947 and 1951. These small prefabricated homes were built on concrete slabs and at first were rental units, but because of demand, were eventually offered for sale.

⁵ "Lustron House," 1 May, 2011, http://en.wikipedia.org/wiki/lustron house (accessed 18 May, 2011).

⁶ Barry Bergdoll and Peter Christensen, *Home Delivery, Fabricating The Modern Building* (New York: Museum of Modern Art, 2008), 9.

⁷ "Levittown, New York," 6 May, 2011, http://en.wikipedia.org/wiki/levittown_new_york (accessed 18 May, 2011).

While the Lustron and Levittown houses were modern in that they used new manufacturing methods to mass produce homes their forms were not a departure from the existing housing stock. The Breuer House, which used more common and familiar materials and methods, was modern in design. All three housing types displayed a new way of living – the Lustron house touted maintenance free living while the Breuer house showed how a simple modern design could accommodate distinct zones of household activity while at the same time creating a cohesive, livable house that still maintained the sense of space and openness associated with modern architecture and Levittown was a new model for suburban development complete with community centers and other public amenities. The Museum stated that their goal for the exhibition was not to exhibit a "minimum house" and that the idea of mass produced homes was not the purpose of their exhibition, but rather to show the public how much good living in a custom built home, architect designed house would cost. 8

Both the Lustron and Levittown houses paved the way for the Museum to undertake Breuer's exhibition house as a somewhat more artistic, decidedly modern, architecturally designed alternative to the mass produced homes being offered to the growing numbers of suburbanites. And so in 1948, Marcel Breuer was commissioned to design the exhibition building for the Museum of Modern Art as part of a series of exhibition buildings to be displayed in their garden. The Museum posed the question to Breuer "how much good living and good design can be purchased for how many dollars". The House in the Museum Garden was Breuer's vision as to how the average American family could live in a well designed, modern, expandable, and affordable home. As stated in the New York Herald Tribune: "Major emphasis has been placed on livability and the architect has sought to meet modern problems of household operation and child care." ¹⁰ The New York Times also said: "Most New Yorkers have never been inside a truly modern house.....It will be the first time that an exhibit of modern architecture has been presented by a New York museum in full scale as well as three dimensions." Breuer's design, which was seen by thousands while on display, influenced modern residential architecture with its use of glass, natural materials, and distinct activity zones to define the interior and exterior spaces and the motion and flow of space. Barry Bergdoll writes, "The most innovative feature of the house was not the vertical cypress siding, the butterfly roof with internalized guttering system, or even the great sheets of glass, but rather the idea of a house that might grow with the family without losing any of its status as a work of architectural art." ¹² Breuer had envisioned his house as expandable with the initial phase having only the lower level and no garage. He designed it such that when the family grew and prospered, the butterfly roof could easily be extended to include a master bedroom suite on top of a one car garage. This "expanded" version of the house

⁸ "The House in the Museum Garden," *The Museum of Modern Art Bulletin XVI*, No. 1., 1949.

⁹ "The House in the Museum Garden."

¹⁰ New York Herald Tribune. 1948, Museum of Modern Art Archive (New York, New York).

¹¹ Mary Roche, "Truly Modern," *New York Times Magazine*, 10 April 1949, Museum of Modern Art Archive (New York, New York).

¹² Barry Bergdoll and Peter Christensen, *Home Delivery*, 11.

KYKUIT, MARCEL BREUER EXHIBITION HOUSE HABS No. NY-6334-G (Page 5)

was the one built for the exhibition. In describing how different Breuer's house is from Buckminster Fuller's Dynmaxion house which had been in the garden a few years before and which had been seen as a "machine for living", Lewis Mumford writes: "it returns very definitely to the humanist tradition of William Morris and H.H. Richardson, with which the modern movement in domestic building began, almost a century ago." ¹³

The house is noteworthy not only for its role in the history of exhibition buildings but for its influence on modern residential design. It is also a significant building in the career of Marcel Breuer marking his introduction to an American audience. "...it is a house to be enjoyed, to be appreciated, to be discriminatingly tested and appraised. In short, it is a very human house, evoking a human response." As described by Barry Bergdoll, the house "stands as one of the most influential of all exhibitions mounted by the Museum in its more than seventy-five years of exhibiting architecture."

¹³ Lewis Mumford, "The Sky Line," *The New Yorker*, 25 June 1949, Museum of Modern Art Archive (New York, New York).

¹⁴ Lewis Mumford, "The Sky Line."

¹⁵ Barry Bergdoll and Peter Christensen, Home Delivery, 9

Part II: Architectural Information:

A. General Statement:

- 1. Architectural character: The house is modern in character with clean lines, a distinctive "butterfly" roof and the use of large panes of glass and vertical cypress siding.
- **2.** Condition of fabric: Although the building is now 60 years old, it has been well cared for and is in good condition.

B. Description of Exterior:

- 1. Overall dimensions: The house has a rectangular shape and measures 78'- 2 ½" on the east and west facades and 24'- 2 ½" on the north and south facades. The butterfly shaped roof makes for an uneven roof line with the highest point at the north end at 14'-10 ¼". The south end measures 10'- 6" high and the lowest point is 24'-3" from the south end and measures 9'-0" high.
- 2. Foundations: Concrete foundation.

Current Condition: The exposed part of the foundation is in relatively good condition with some minor cracking on the west façade and north façade, especially under the windows.

- 3. Walls: The exterior walls are finished in vertical strips of cypress which have been continually treated and/or painted over the years and have currently taken on a more orange color than Breuer probably originally intended. In his review of the building, critic Lewis Mumford states: "The dominant color of the outside of the house is brown, set off against white and a clear, cerulean blue. Perhaps its most satisfying aspect is the eastern façade, whose door and windows, set in a recess, form a Mondrian composition of colored rectangles". From this passage, the current southern façade, painted all white, was investigated and the original paint colors of blue and yellow were found underneath the white paint and eventually restored. Current Condition: Most of the wood is in good condition, but overall it does need to be treated again as the finish is beginning to degrade unevenly.
- **4. Structural System, framing** The exterior walls are typical wood frame construction **Current Condition**: The exterior walls appear to be in good condition.
- 5. Porches, stoops, balconies, bulkheads: The only balcony is off the master bedroom on the upper level and measures 11'-5 ½ " x 3'-1/8" and is located 3'-10 ½ " off the first floor level with the parapet height measuring 7'-7 ¾". The stairs from the back yard are a series of eight 12"-0" treads with and the handrail is made of stainless steel with elegant horizontal strips.

Current Condition; There is some deterioration of the wood supports on the north side of the balcony. The handrail and stairs also need to be painted.

¹⁶ Lewis Mumford, "The Sky Line"

6. Chimney: The chimney is 2'-6" x 2'-0" and measures 2'-3" higher than the high point of the north end of the roof.

Current Condition: Unknown

7. Openings:

a. Doorways and doors: There are two doors on the main façade (east elevation); the main entrance, and a door to the pantry, as well as a garage door to the southeast. There is one door to the guest bedroom on the south elevation and three doors total on the west elevation, including a door to the playroom, a door to the living room and a door from the master bedroom to the balcony on the upper level. All doors are 3'-0" wide x 6'-8" high except for the door at the balcony which measures 6'-4" high.

Current Condition: All doors are in good working condition but the door on the door on the South facade is missing an exterior doorknob.

b. Windows and shutters: All of the casement windows except for one were replaced with aluminum frame windows in the 1980s. All of the windows, both operable and inoperable, are double paned except for the one original steel casement.

The East façade has five operable casements, four single opening 1'-9" wide: two in the kitchen and one each in the pantry, bathroom, and guest bedroom, and one 3'-6" wide double opening in the dining room. It also has five inoperable glass sections: one 1'-9" next to the garage door, one 1'-9" and 5'-0" high next to the main entrance, and one 3'-6" each in the kitchen, pantry, and bathroom. All windows on this elevation, both operable and inoperable, are 3'-0" high with the exception of the main entrance sidelight, as noted.

The South elevation has three operable casements and six sections of fixed glass. The guest bedroom has one 1'-9" x 3'-0" high operable casement with a fixed pane above it, an 8'-0" wide fixed pane up to the height of the door, and another strip of fixed glass above that.. The children's bedroom has two casement windows measuring 2'-6" x 4'-0" high and fixed glass panels measuring 3'-6" x 4'-0" on either side.

The West façade is dominated by fixed glass picture windows in the living room, playroom, and master bedroom. The living room windows measure 8'-3" and 8'-0" wide and 5'-0" high from the floor. Another fixed glass panel to the south of the door measures 2'-9" x 5'0" high. At the north end of the living room is the only original steel casement remaining in the building and it measures 1'-6" x 4'-9" with a 1'-3" window below. The master bedroom has a full height fixed glass window measuring 8'0" wide. The playroom has a 1'-6" x 5'-0" high casement window with a smaller 1'-6" x 1'-3" fixed window below and a large fixed glass window measuring 10'-0" x 5'-0" high with two panes below it measuring1'-3" x 2'-9" each. At the south end of the building on the west facade, the children's bedroom has a 1'-6" x 5'-3" casement window.

The north façade has two windows – one in the master bedroom which measures 1'-3" x 5'-0" and is fixed and the other next to it in the master bathroom which measures the same, but is an operable casement window.

The house has no shutters or storm windows.

Current Condition: The windows, while not original, are in good working condition. The operable window in the master bedroom was replaced in 2007 with a fixed glass pane when a window air conditioner was removed.

8. Roof

- a. Shape, covering: The roof is Breuer's signature butterfly roof. The water flows toward the center drain at the low point, eliminating the need for gutters. The single drain then goes down the building in the interior wall (bathroom/pantry wall) to connect to the drainage system. The roof is made of tar & gravel.
- **b.** Current Condition: Not accessed, but there are no interior signs of problems with the roof.
- c. Cornice, eaves: NA
- **d.** Dormers, cupolas, towers: NA

C. Description of Interior:

1. Floor plans: Breuer's floor plan is deceptively simple. The house has defined zones of activity – living, bedroom, children's area, but Breuer has allowed the flow of space from one area to the next and to the outside by using continuous planes of material for the ceiling, walls and floor and by keeping several of the interior partition walls lower than the ceiling height. The house was thought of as an expandable house which could be build in phases—the first phase for a family starting out would only have the lower portion built and the second phase, as the family grew, would consist of a master suite built atop a garage. The configuration of the butterfly roof lent itself to this addition as the sweep of the roof could be extended to accommodate the new room. The main floor consists of a small entryway with a half wall separating it from the living room. The living room and dining area are one room measuring 22'-0" x 18'-6", with the kitchen to the south off the dining room. The kitchen measures 8'-3" x 13'-0". The Playroom is to the west of the kitchen, and is connected by a door to the dining and living room. It measures 8'-8" x 17'-7". On the south side of the Playroom are two bedrooms and a small bathroom. The larger bedroom, which would have been the master bedroom in the first phase (but turns into another child's room or guest bedroom in the second phase), measures 13'-0" x 13'-9". The children's bedroom measures 10'-2" x 13'-9". A pantry area is located next to the kitchen and measures 7'-7" x 13'-1". As the family grew, the house would be enlarged to the North of the entryway with the stairway tucked behind the fireplace and a master bedroom and bathroom over the garage. The master bedroom measures 13'-0" x 12'-6" while the bathroom measures 6'- 0" x 7'-6". There is also a walk in closet measuring 5'-3" x 7'-6". This space is open to the lower area for a sweeping view into the living room, dining room and kitchen. Underneath the master bedroom suite would be a small one car garage. In describing how the house seems to be of two minds – one in which there are defined spaces for activities and the other in which the space flows between sections of the house, Mumford writes "In this sense, it is a house for the whole man, unified in spirit yet organically adapted to the several

- phases of life and personality the living space of the elders physically separated from that of the young, yet not putting them entirely out of sight and out of mind."¹⁷
- 2. Stairways: There are only 2 stairways in the house. The stairs from the lower level to the master bedroom suite which in the original house were the same stone as the floor. Currently, the stairs are wood. At the top of this stairway is a nautical rope suspended by cables and used as a handrail. The other stair is outside the master bedroom from the balcony to the ground level and is an elegant open stair with cypress steps and metal handrail.

Current Condition: The interior wood stair to the master bedroom is in good condition.

3. Flooring: The original flooring in most of the lower level of the exhibition house was large irregular bluestone slabs, but when the house was moved to the current site, they poured the foundation with the intent to put a cork floor over the concrete floor. The cork was eventually changed to carpet and recently in 2009, the carpet was replaced with slate to go back to the original intention of stone flooring (although there wasn't enough depth to replicate the irregular look of the large bluestone slabs). The slate matches the pattern in the outside patios. The guest bedroom and children's bedroom currently have similar beige carpet but in the exhibition, the children's room and guest bedroom had rush matting. The guest bathroom currently has a ceramic tile floor and the kitchen and pantry have linoleum. In the exhibition house, these rooms had the same stone floor as the living room and playroom. The master bedroom currently has a low pile carpet, as did the one in the exhibition. The master bathroom has a ceramic tile floor, but the original had an asphalt tile floor.

Current Condition: The slate floor in the dining/living room and playroom is new and in good condition. The linoleum floor in the kitchen and pantry shows substantial discoloration and several tears, especially in the kitchen. The original floor in the kitchen and pantry in the exhibition house was stone. The current carpets in the three bedrooms show signs of wear and insect damage and should be replaced. The ceramic tile floors in both bathrooms are in good condition.

4. Wall and ceiling finish: The walls throughout the house are plywood panels with noticeable reveals between the panels. The exceptions to this are the east wall of the Playroom which is cedar plywood with a clear lacquer, the two north walls of the lower bedrooms are firzited plywood, and the East wall of the children's bedroom and West wall of the guest room are both cypress boarding. The walls in the lower bathroom are plywood except for the shower surround which is a light gray Carrara glass tile installed in 2008 and the walls in the upper bathroom are original Carrara glass tiles in gray (the tub surround was restored with the same material in 2007). The closet in the master bedroom is sided in cedar plywood. The ceiling in the master bedroom, living room and kitchen is one sweeping plane of narrow strips of cypress. The ceilings in the other parts of the house are painted plywood. The original drawings show that the ceiling in the master bathroom was to be cypress boards, but the exhibition house was not built according to the plan and instead had a plywood ceiling with GE heating panels installed on them.

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 $^{^{17}}$ Lewis Mumford, "The Sky Line."

Current Condition: The plywood walls are all in good condition. The cedar plywood wall in the playroom shows signs of warping as well as some marks. Also, the Marlite sliding closet panels in the hallway have some discoloration and chipping at the corners. In the living room, there are also two sections of new cypress walls that were installed in 2007 that have not been treated or painted as the other cypress panels in the house. In April 2007, a paint analysis was done by Welsh Color and Conservation, Inc. and the walls painted accordingly. All of the paint was specified as Benjamin Moore colors. The main walls in the living and dining area as well as the bedrooms are painted Navajo White; the accent wall color in the entry and the master bedroom north wall is Denim Wash (light blue); another accent wall going up the main staircase is Silver Spring (gray); the exterior balcony adjacent to the master bedroom is painted Denim Wash on the north wall and Chili Pepper (red) on the west wall; the lower bathroom walls are Milk Shake (pink) and Silver Spring; accent walls in the desk alcoves of each downstairs bedroom are Silver Spring. From original photos of the house as the House in the Museum Garden, it is thought that the blue accent walls were originally painted what is known as "Breuer Blue". However, evidence of the use of this color in the existing house at Pocantico is not seen and it is unknown as to whether or not the wall material is original or if it was changed over the 50 years that the house was at Pocantico. The ceiling is in good condition throughout the house with the exception of one spot of water damage in the guest bedroom. The cypress ceiling shows two of the four cuts that were done to divide the house up for transport to Pocantico. In the bathroom where the ceilings are painted plywood, they are painted Benjamin Moore Navajo White. In the two bedrooms on the lower level, the plywood ceilings, which extend to the outside overhang, are painted Sunny Side Up (pale yellow). The ceiling of the playroom is painted Nantucket Fog (blue gray).

5. Openings:

- a. Doorways and doors: There are six interior doors in the house one to each of the two bathrooms, one to each of the lower bedrooms, one to the closet in the master bedroom and one to the playroom from the living room. All of them are solid wood doors except the one to the Playroom which has a glass insert, presumably for keeping an eye on the children while they played.
 Current Condition: The doors in the house are in good condition.
- b. Windows: The original windows were steel casement windows manufactured by Hope's Windows and sometime in the 1980s, they were replaced with aluminum windows except for one to the west of the fireplace. Most of the fixed pane windows are double-pane glass but they were probably originally single pane.
 Current Condition: The windows are generally in good condition. However, the window on the north wall of the master bedroom shows signs of water damage on the above and below the window. This fixed window was installed temporarily in 2007 when a window air conditioning unit was removed and the window needed to be replaced. It is temporary as the long range goal is to replace all the aluminum windows with steel casements as per the original plan. Prior to removing the air conditioning unit, there were also signs of moisture above and

below the window, so it is not a new problem. The casements in the downstairs bathroom, pantry, and dining room have some fogging between the glass panes.

- **6. Decorative features and trim:** The house is very simply finished with no decorative features. There is a vinyl baseboard in the kitchen and pantry that is peeling away from the walls in some locations.
- 7. Hardware: The doorknobs to the master bathroom, closet, guest bedroom and children's bedroom are clear acrylic flattened cylinders on brushed aluminum stems. The doorknobs on the lower level bathroom and the door knob on the door from the Playroom to the exterior are similar except that the door knobs are made of a dark stained wood. The doorknobs on the main door and living room door to the patio are traditional brass knobs. The pulls on the Marlite closet panels are simple wood pulls.

8. Mechanical equipment:

a. Heating, air conditioning, ventilation: The house is heated with radiant heat (as intended by Breuer) and a new Buderus hot water heater and boiler was installed in 2009. Additional wall heaters were tied into the radiant heating system in the playroom, living room, and master bedroom at an unknown date. The house has two through wall air conditioning units that were installed prior to 2007 – one in the dining room and one in the guest bedroom. The house also has an exhaust ventilation system as seen in the square wood louvers on the ceiling in each room that was designed by Breuer to ventilate the house during the exhibition. It was reused when the house was moved.

Current Condition: The new hot water heater and boiler are in good condition. The two through-wall AC units were replaced in 2007 with energy efficient units. The ventilation system is currently not working.

- **b.** Lighting: The house has mostly indirect lighting sources such as valances with fluorescent lighting (living room, bedrooms) and direct downlights in the playroom and hallway. Accent lighting over the closet/bookcase in the entryway provides additional lighting in the living room, dining room and stairs. These lights are original to Breuer's design. Other lighting includes lamps next to the beds and the sofa and was not part of the original furnishings plan.¹⁸
 - **Current Condition**: The current lighting is in fair condition, there are a couple of pieces missing from the lighting fixtures in the playroom.
- **c. Plumbing**: New plumbing was installed when the house was moved in 1950. The toilets and sinks are original.

Current Condition: The plumbing appears to be in good condition.

9. Furnishings

a. Original Furnishings: Archival photographs by Ezra Stoller of the House in the Garden installed at MoMA, the booklet published at the time of the exhibit, and museum registrar's records were the sources for understanding the original interiors.

At MoMA the house contained a selection of vanguard designs in furnishings and materials, including works of art from the Museum (by Calder and Arp, created

¹⁸ Breuer was unhappy with available lamps, which led to the competition at MoMA in 1950 to stimulate good design in lighting. Juliet Kinchin, Curator Department of Architecture and Design, MoMA, visit 4/10/09

KYKUIT, MARCEL BREUER EXHIBITION HOUSE HABS No. NY-6334-G (Page 12)

for the house, and Gris, Klee and Leger). Some furniture was designed by Breuer himself for the house, such as the Philco two piece radio and television receiver. "As for Mr. Breuer's combination coffee table, magazine stand and control cabinet for radio, phonograph, and television, finished in velvety black, it is the piece of furniture the world has been waiting for." Dining chairs were examples of Breuer's bentwood designs from 1948, and had cane seats. The molded plywood nesting tables were created by Breuer in 1936 when he was working in England at Isokon. The dining table was by Charles Eames.

Other chairs in the house were by Eero Saarinen (Grasshopper chairs²², 1946, brown and chartreuse, in the living room; the 'Womb Chair,'²³ 1946, in blue, in the large back bedroom, both for Knoll), by Charles Eames (black and natural with metal legs, 1945 design for Herman Miller), and by B.K.F. leather chair²⁴ (Butterfly Chair, 1938). In the larger back bedroom was a stool by Alvar Aalto with a webbed seat and split legs. In the living room was a Knoll two-tone sofa in brown and grey with wooden frame.

Living room draperies were of Shantung silk, and the distinctive blue, brown and beige stripe for the entry coat closet and the window of the play room, also Shantung, was a "Knoll Stripe" design conceived in 1949 by head Knoll textile designer Eszter Haraszty, a close friend of Breuer's. (The fabrics were supplied by Arundel Clarke.)

The playroom was furnished with large square cushions in blue and red, a wooden train, a loom, a tool bench and tools from Creative Playthings.

Floors were covered with hemp matting. Window treatments in the secondary bedrooms were match-stick bamboo shades.

The work of several different designers was featured in the kitchen, which was fully equipped for the exhibition. The dinnerware was designed by Edith Heath with glassware from Kosta. There were vases by Alvar Aalto, Arabia nesting dishes, Wickham compotes, and wooden bowls and trays by James Prestini, Bob Stocksdale, and others. Completing the kitchen setup were a full complement of

¹⁹ Lewis Mumford, "The Sky Line,". Efforts to locate this piece or another like it have been to no avail, so far. ²⁰ Produced by a team research project, led by Breuer. A collaboration with the US Forest Produces Laboratory, he combined his knowledge of 15 years of experience with plywood and recent developments in high-frequency gluing. The team report boasted of the chair's ability to carry a load of 500 pounds and the competition jury described the design as "ingeniously articulated." 2009 MoMA exhibit, *What Was Good Design*.

p. 166 Wilk, Christopher, <u>Marcel Breuer: Furniture and Interiors</u>, New York, The Museum of Modern Art, 1981, MoMA's 1948 International Competition for Low-Cost Furniture Design. "He further tried to reduce the thickness of the various elements, especially the leg supports, to make the chairs lighter in weight and appearance."

²¹ p.132, ibid. The tables were cut and bent from a single board and originally manufactured in Estonia by Venesta for Isokon.

²² The first chair that Saarinen (American, born Finland, 1910-1961)designed for Knoll, it was in production at Knoll from 1946 to 1965.

²³ The womb chair was "designed on the theory that a great number of people have never felt comfortable and secure since the left the womb. The chair is an attempt to rectify this maladjustment in our civilization..", 2009 MoMA exhibit, *What Was Good Design*.

²⁴ Antonio Bonet (Spanish, 1913-1989), Juan Kurchan (Argentinean, 1913-1975), Jorge Ferrari-Hardoy (Argentinean, 1914-1977) designed in Buenos Aires in 1938. The first two B.K.F. chairs to come to the US went to Falling Water, Edgar Kaufmann's home in Pennsylvania, and to MoMA

standard General Electric appliances including: a refrigerator/freezer, an electric stove/oven with built in pressure cooker, a combination sink, garbage disposal, and top loading dishwasher, and an automatic washing machine.

b. Current Furnishings: The original furnishings were not in the house when the NTHP took possession in 2007. Because of Breuer's history in furniture design and the inclusion in the exhibit of his own work and the iconic works of his colleagues at the time it was important to try to re-furnish the house with as many of the original elements as possible. Due to the house's use as a residence, rather than as an historic exhibit, certain additions have been made. Where possible those additions have been period-appropriate for the 1949 design and in some cases are other works by designers already featured in the house elsewhere. The first purchase was a set of three nesting tables, which were re-issued by Isokon in London. Also in production were two Saarinen Grasshopper Chairs²⁵ (which we had covered with Knoll fabrics in dark brown and 'grasshopper', chartreuse approximating the original) and the Womb Chair, in the appropriate blue.

Commissioned through Knoll, based on the Stoller photographs, was Shantung silk fabric in the blue, brown and beige "Knoll Stripe," for the entry closet and the playroom windows. Match-stick bamboo shades similar to those in the photos were installed in the dining area and secondary bedrooms.

A beige Knoll sofa was acquired for the living room and a B.K.F. (Butterfly Chair) with brown canvas sling seat for the master bedroom. A maple dining table was modified to the appropriate dimensions and Matteograssi brown leather chairs, with chrome-plated tubular steel, are being used as dining chairs. Two Wassily Chairs, chrome-plated tubular steel and brown leather (1927-28)²⁶ by Breuer are in one of the back bedrooms, as are two period Eames chairs. The playroom has become a work room, and a desk by Paul McCobb was acquired for this space. Breuer Cesca²⁷ chairs are being used in this space.

Marcel Breuer's dissatisfaction with the lamps available at the time²⁸ left the house sorely lacking in task lighting and additions have had to be made in almost every room to accommodate the needs of residents. The lamps that have been added include a standing lamp by Walter von Nessen in the living room, and bedside lamps and a standing lamp in the living room by Tolomeo.

Edith Heath (American, 1911-2005) dinnerware in the French Grey is still in production in California and a few place settings have been purchased for the house.

²⁵ Now made by Modernica, Los Angeles, Ca.

²⁶ The first piece of furniture made of tubular steel this chair was named for Wassily Kandinsky, who was at the Bauhaus with Breuer and purchased one of the first chairs.

²⁷ Named for his daughter, Francesca.

²⁸ Ken Bache. "New Light on Those Portables". *Retailing Daily*, NY 13 April 1949. Visitors to the museum exhibit were trouble by this and Breuer responded via the press: "Mr. Breuer replied, in effect, that he could find no portable lamps on the market which were suitable for this type of home. He agreed, however, that there was a need for portable lamps in the home, for local lighting, to supplement the general lighting provided for by built in fluorescent tubing".

Although the original appliances were no longer in the house in 2007 (it is not known whether they were transported with the house to Pocantico Hills), a refrigerator and a stove of the same models²⁹ as the originals were purchased through EBay. Both appliances are in good working condition, as was necessary to be part of a functional kitchen. Unfortunately, the combination sink, disposal, and dishwasher has not been found. The current sink and surround are white enamel and the dishwasher is also white to match the existing appliances. Due to the need to keep the house fully functional for periodic residencies, a stacking washer and dryer that were present in 2007 remain in lieu of a washing machine of the original model.

D. Site:

- 1. Historic Landscape Design: In the original exhibition, the living spaces were oriented to the south-southeast and now they look west. Originally in its setting at the museum, the exterior of the house was divided into activity zones with fences and stone walls. The entry was screened from the service yard with a high wood fence. In the back of the house, the "adult" area was set apart from the children's area with another wood fence extending the interior zones to the exterior, like the planes of material. The children's area also included a sandbox. The main outdoor area was enclosed with a low stone wall, an extension of the interior wall between the living room and playroom, with built in seating and barbecue area.

 In its current setting, the fences and stone walls have not been erected and the house was sited in an area where another house had once stood. The Annex, which was built in 1952, is situated to the southeast of the main entrance, in an area considered the "service area".
- 2. Outbuildings: The original house had no outbuildings, however, after the house was moved to the estate, a small separate "annex" was built in 1952 in a style similar to the main house. The annex is 14-'6" x 26'-0" and consists of 2 bedrooms with a shared bath in between and was used by service staff. The same exterior materials and color scheme of the main house were used.

²⁹ Without a record of the actual model numbers of the appliances, matches were made based on close inspections of the Ezra Stoller photographs.

Part III Sources of Information:

- A. Architectural Drawings: Original architectural drawings by Marcel Breuer are part of the collection at MoMA. Original drawings of modifications made to the house when it was rebuilt at Pocantico in 1950 are part of the drawing collection of the Rockefeller Brothers Fund. Drawings of the Lauck House and the Tilly House by Breuer, which are based on the exhibition house are part of the collection at Syracuse University.
- **B.** Early Views: Photographs by Ezra Stoller document the original construction of the house in the museum garden.
- C. Interviews:
- **D. Selected Sources:**
- E. Likely Sources Not Yet Investigated:
- F. Supplemental Material: The MoMA archives contain many articles and reviews of the exhibition which were extremely helpful with research. Also, the exhibition program produced by the museum is a source of original materials and suppliers. The Marcel Breuer Papers at Syracuse University Library also contain drawings and specifications for the houses (the Lauck House and the Tilly House) that were built based on the plans of the exhibition house.

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